

In the claims:

Claims 1-5 (Cancelled)

6. (New) A method of processing a voice mail message in a unified messaging system using a wireless mobile communication device having circuitry for communicating over a wireless data communication channel and a wireless voice communication channel, the method comprising the steps of:

receiving the voice mail message at the unified messaging system and storing it in a data store associated with the user of the wireless mobile communication device;

detecting the stored voice mail message at the data store and transmitting a notification signal to the wireless mobile communication device via the wireless data communication channel, the notification signal including information regarding the voice mail message;

displaying the voice mail message information on a display interface of the wireless mobile communication device, the display interface providing one or more commands for processing the voice mail message, wherein one of the one or more commands includes a message retrieval command;

transmitting a command signal from the mobile communication device to the unified messaging system, the command signal including the message retrieval command; and

in response to receiving the message retrieval command, transmitting the voice mail message to the wireless mobile communication device via the voice communication channel.

7. (New) The method of claim 6, further comprising the step of playing the voice mail message on the mobile communication device.

8. (New) The method of claim 6, wherein the step of transmitting the notification signal to the mobile communication device further comprises the steps of:

preparing an email message including the information regarding the voice mail message;
and
transmitting the email message to the mobile communication device.

9. (New) The method of claim 6, wherein the information regarding the voice mail message comprises at least one of a message waiting indicator, a voice mail message reference identification, a voice mail access telephone number, a caller identification, or a date and time of the call.

10. (New) The method of claim 6, wherein the step of transmitting the command signal from the mobile communication device to the unified messaging system comprises the steps of:

transmitting a set of DTMF tones from the mobile communication device to the unified messaging system; and
identifying the set of DTMF tones at the unified messaging system.

11. (New) The method of claim 10, wherein the set of DTMF tones are silent tones.

12. (New) The method of claim 6, further comprising the steps of:

providing a list of voice mail control options for controlling the voice mail message on the display interface;

sensing user selection from the list of options voice mail control options; and

performing the selected option on the voice mail message.

13. (New) The method of claim 6, wherein the command signal is transmitted to the unified messaging system via the voice communication channel.

14. (New) The method of claim 6, wherein the command signal is transmitted to the unified messaging system via the data communication channel.

15. (New) The method of claim 6, further providing the steps of:

providing a voice mail system integrated within the unified messaging system; and

providing a private branch exchange (PBX) system coupling the voice mail system to a wireless voice network.

16. (New) The method of claim 15, wherein the command signal is transmitted from the mobile communication device to the unified messaging system over the voice communication channel through the PBX system.

17. (New) The method of claim 6, wherein the notification signal is one of an e-mail message, an SMS message, an Internet Message Service message, an Enhanced Messaging Service message, or a Multi-Media Messaging Service message.

18. (New) A method of remotely controlling a voice mail system using a dual-mode wireless device capable of communicating via a wireless data network and a wireless voice network, the method comprising the steps of:

receiving a voice call at the voice mail system and storing the voice call in a voice mail box associated with the user of the dual-mode wireless device;

detecting the stored voice mail in the voice mail box;

transmitting a notification message to the dual-mode wireless device via the wireless data network, the notification message indicating that the voice call is stored in the user's voice mail box;

transmitting a command signal from the dual-mode wireless device to the voice mail system to remotely control the operation of the voice mail system; and

receiving the stored voice call at the dual-mode wireless device via the wireless voice network.

19. (New) The method of claim 18, further comprising the steps of:

interfacing a private branch exchange (PBX) system to the voice mail system;

receiving the voice call at the PBX system and routing the voice call to the voice mail system.

20. (New) The method of claim 19, wherein the voice mail system is integrated into the PBX system.

21. (New) The method of claim 18, further comprising the steps of:

- associating a reference identification with the stored voice mail message;
- including the reference identification in the notification message transmitted to the dual-mode wireless device; and
- including the reference identification in the command signal transmitted to the voice mail system so that the voice mail system can process the stored voice mail message.

22. (New) The method of claim 18, wherein the voice mail system is coupled to a unified messaging system, the method further comprising the steps of:

- interfacing the unified messaging system with the voice mail system; and
- generating the notification message at the unified messaging system.

23. (New) The method of claim 22, further comprising the steps of:

- transmitting the command signal via the wireless data network; and
- receiving the command signal at the unified messaging system and routing the command message from the unified messaging system to the voice mail system.

24. (New) The method of claim 18, further comprising the step of:

- transmitting the command signal via the wireless voice network.

25. (New) The method of claim 24, further comprising the steps of:

receiving the command signal at a private branch exchange (PBX) system; and
routing the command signal from the PBX system to the voice mail system.

26. (New) The method of claim 18, further comprising the step of:

determining whether the dual-mode wireless device is associated with the voice mail box
prior to transmitting the notification message.

27. (New) The method of claim 22, further comprising the step of:

transmitting e-mail messages from the unified messaging system to the dual-mode
wireless device via the wireless data network.

28. (New) The method of claim 27, wherein the e-mail messages are stored at a corporate e-mail
server that interfaces with the unified messaging system.

29. (New) The method of claim 18, wherein the notification message is one of an e-mail message
or an SMS message.

30. (New) The method of claim 18, wherein the notification message includes information
describing the voice call stored in the voice mail box.

31. (New) The method of claim 30, wherein the notification message information includes at least one of a voice mail reference identifier, a voice mail system telephone access number, caller identification information, or the date and time of the voice call.

32. (New) The method of claim 18, further comprising the step of:

displaying a unified event listing at the mobile device, the unified event listing including at least e-mail message events and voice mail message events received at the dual-mode wireless device.

33. (New) The method of claim 32, further comprising the steps of:

associating a different graphical icon for the e-mail message events and the voice mail message events at the dual-mode wireless device; and

displaying the graphical icons on the unified event listing for each of the received e-mail messages and voice mail messages.

34. (New) The method of claim 33, further comprising the steps of:

the user selecting one of the graphical icons associated with a voice mail message; and
displaying voice mail message information regarding the selected voice mail.

35. (New) The method of claim 34, wherein the voice mail message information includes at least one of a voice mail reference identifier, a voice mail system telephone access number, caller identification information, or the date and time of the voice call.

36. (New) The method of claim 35, further comprising the steps of:

transmitting a connection request signal from the dual-mode wireless device to the voice mail system;

accepting the connection request signal at the voice mail system and providing a voice network connection between the voice mail system and the dual-mode wireless device via the wireless voice network.

37. (New) The method of claim 36, wherein the connection request includes a voice phone number of the voice mail system.

38. (New) The method of claim 36, further comprising the step of:

authenticating the user of the dual-mode wireless device prior to accepting the connection request signal and providing the voice network connection.

39. (New) The method of claim 38, wherein the authentication step utilizes caller identification information associated with the dual-mode wireless device.

40. (New) The method of claim 38, wherein the authentication step utilizes a DTMF password sequence supplied by the dual-mode wireless device.

41. (New) The method of claim 18, further comprising the steps of:

displaying a command list at the dual-mode wireless device, the command list including one or more commands associated with voice mail operations; and

selecting and transmitting one of the commands on the command list from the dual-mode wireless device to the voice mail system to remotely control the operation of the voice mail system.

42. (New) The method of claim 41, further comprising the steps of:

mapping the commands on the command list into voice mail system operating commands at the dual-mode wireless device; and

after a command is selected, transmitting the voice mail system operating commands from the dual-mode wireless device to the voice mail system.

43. (New) The method of claim 42, wherein the voice mail system operating commands comprise a sequence of one or more DTMF signals.

44. (New) The method of claim 22, further comprising the steps of:

transmitting a connection request command message from the dual-mode wireless device to the unified messaging system via the wireless data network;

providing the connection request command message to the voice mail system; and

the voice mail system initiating a voice call to the dual-mode wireless device via the wireless voice network.

45. (New) The method of claim 44, further comprising the steps of:

the dual-mode wireless device detecting caller identification information of the voice mail system; and

automatically answering the voice call without engaging a ringing mechanism on the dual-mode wireless device.

46. (New) A method of remotely controlling PBX functions using a dual-mode wireless device capable of communicating via a wireless data network and a wireless voice network, the method comprising the steps of:

displaying a menu of PBX functions at the dual-mode wireless device;

selecting one of the PBX functions and generating a PBX service command message at the dual-mode wireless device;

transmitting the PBX service command message from the dual-mode wireless device to a PBX system via the wireless data network; and

executing the selected PBX service command at the PBX system and generating a voice connection between the dual-mode wireless device and a called party via the wireless voice network through the PBX system.

47. (New) The method of claim 46, further comprising the steps of:

receiving the PBX service command message at a unified messaging system;

providing an interface between the unified messaging system and the PBX system; and

routing the received PBX service command message from the unified messaging system to the PBX system.

48. (New) The method of claim 46, further comprising the steps of:

- providing a conference call function as one of the displayed PBX functions;
- selecting the conference call function at the dual-mode wireless device and entering a plurality of called party identifiers to communicate with on the conference call;
- transmitting the called party identifiers from the dual-mode wireless device to the PBX system; and
- in response to the PBX service command message, the PBX system initiating a voice conference call between the dual-mode wireless device and the plurality of called parties.

49. (New) A method of processing a voice call at a private branch exchange (PBX) system using a wireless mobile device, the method comprising the steps of:

- receiving a phone call at the PBX system and placing the phone call on hold;
- transmitting a notification signal to the wireless mobile device over a wireless data network indicating that a call has arrived at the PBX and is on hold;
- notifying the party placing the phone call that the call is on hold while the called party is being notified.
- receiving the notification signal at the wireless mobile device and displaying information regarding the phone call;
- transmitting a command signal from the wireless mobile device to the PBX system to control the held call, wherein the command signal includes a reference identifier that uniquely identifies the held call; and
- the PBX system receiving the command signal and processing the held call.

50. (New) The method of claim 49, wherein the command signal is transmitted to the PBX system via the wireless data network.

51. (New) The method of claim 49, wherein the command signal is transmitted to the PBX system via a wireless voice network.

52. (New) The method of claim 49, wherein the PBX system processes the held call by generating a connection between the held call and the wireless mobile device via a wireless voice network.